

# User Manual

## SporTrak Color GPS Mapping Receiver





## **WARNINGS**

### **FOR SAFETY REASONS, THE DRIVER SHOULD NOT USE THIS DEVICE IN A VEHICLE WHILE IN MOTION TO ASSIST THE DRIVER TO NAVIGATE.**

Please do not try and change any settings on the SporTrak while driving. Come to a complete stop or have your passenger make any changes. Taking your eyes off the road is dangerous and can result in an accident in which you or others could be injured.

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The accuracy of position fixes can be affected by the periodic adjustments to GPS satellites made by the U.S. Government and is subject to change in accordance with the Department of Defense civil GPS user policy and the Federal Radionavigation Plan. Accuracy can also be affected by poor satellite geometry.

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For further information concerning this limited warranty, please call or write:

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# Introduction

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Welcome and congratulations on your purchase of the Magellan SporTrak Color GPS mapping receiver. The SporTrak Color has all the features that a sailor, fisherman, hiker, hunter, or any person involved with outdoor recreational activities has come to expect from a Magellan GPS receiver. In addition to these features, the SporTrak Color offers the ability to display your location on detailed city maps providing you with a complete navigation tool that will last you for years to come.

Magellan has been a leader in the hand-held GPS market since introducing the world's first commercial, hand-held GPS receiver in 1989. Since that time Magellan has continued to equip the outdoorsman and consumer markets with navigational receivers, all the way from the first GPS receiver for under \$100 to automotive receivers with turn-by-turn routing capabilities.

Before you begin, make sure that your package includes all of the items listed on the packing list. Magellan is a registered trademark name for Thales Navigation.

## About This User Manual

This User Manual is divided into six chapters; Introduction, Setting Up the SporTrak, Basic Operation, Reference, Frequently Asked Questions, and Appendix. Each of these chapters will be explained briefly so you can tell which ones are right for you. A glossary and index are provided after the Appendix as well.

**Setting Up the SporTrak:** This chapter will show you how to prepare the SporTrak Color for use. Instructions will include how to install the batteries, how to select the languages and how to initialize the SporTrak Color.

**Basic Operation:** This chapter provides you with step-by-step instructions for using the basic functions of the SporTrak Color. This chapter will explain getting a position fix, viewing the Map screen, saving a waypoint and using a GOTO. Knowing these four basic steps will enable you to use the SporTrak Color for most things you will want to do.

**Reference:** Here you will find step-by-step instructions for all of the features found in the SporTrak Color. This chapter is set up in a way that you can quickly and easily find the feature you are looking for.

**Frequently Asked Questions:** This chapter is aimed at answering some of the more basic questions that you may have about your SporTrak Color, the global positioning system (GPS) and using the SporTrak Color to its fullest. Experienced GPS users will probably not find any new information in this chapter but new GPS users may find many of their questions answered here.

Appendix: Sections containing information about connecting your SporTrak Color to external devices, accessories, troubleshooting and specifications can be found in the Appendix.

Glossary: A glossary is provided explaining some of the terms and abbreviations found in the SporTrak Color and this manual that may not be familiar to all users.

It's time to begin using your SporTrak Color. Don't be overwhelmed with the size of the manual as we have tried to give enough information for the beginning user as well as provide the experienced users with the specifications and features that they are looking for.

The most important thing to us is to be sure that you are completely satisfied with your SporTrak Color and the accompanying documentation. If you have any ideas, suggestions or even a complaint, please pass them along to us through our web site ([www.magellangps.com](http://www.magellangps.com)) or by mail.

# Setting up the SporTrak

Setting up the SporTrak Color is a simple three-step process: installing the batteries, selecting the language to be used and initializing the SporTrak.

## Installing the Batteries

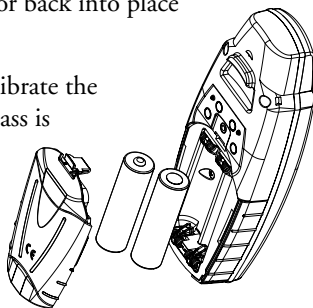
To change the batteries, remove the battery door on the back of the SporTrak Color. The door can be easily removed by pressing on the lever at the top of the battery door. This releases the door and allows it to swing away from the receiver. There is a small lip at the bottom of the battery door, so be sure to open the door as if it were hinged on the bottom.

Remove the old batteries and install two new AA batteries, observing the correct polarity. Replace the door by aligning the lip at the bottom of the door to the groove at the bottom of your receiver. Swing the door back into place until the lever snaps into the body of the receiver.

Anytime you replace the batteries, you should re-calibrate the compass. This will insure that your SporTrak Compass is providing you with the most accurate compass information.

When battery life is low you will receive a warning, letting you know that it is just about time to change the batteries. You can continue to use your SporTrak Color with the low battery indication but the compass may react erratically. If you need to use the compass during low battery periods, you should perform the compass calibration routine when the warning first appears.

See the Appendix of this manual for details on calibrating the compass.



***How much time do I have to replace the batteries?*** Any waypoints or routes you have created are stored in permanent memory with the batteries removed. Present position and time data is not stored in permanent memory but will be held in memory for at least 12 hours without batteries installed.



Always turn the SporTrak off before removing the batteries or turning off external power. Failure to do so can cause loss or corruption of data.



# Selecting Language

The first time you use your SporTrak (or if memory has been completely erased) you will be asked to select the language that you want to use. Use the UP/DOWN arrows on the keypad to highlight the language you desire. With the language highlighted, press the ⤵ ENTER button. You can select English, French, German, Spanish, Italian, Portuguese, Finnish, Dutch or Swedish.

You can change the language at any time by accessing the Languages option of the Setup Menu. (See Changing Languages in the Reference Section of the User Manual.)

## Initialization for First Time Use

The final step in setting up the SporTrak is to initialize the receiver for first-time use. This will help your SporTrak begin computing your position in the fastest manner possible.

The reason for initialization is to speed up the process for computing the first position fix when the SporTrak has no last position computed in memory (i.e., when the SporTrak is brand new or memory has been cleared). This gives the SporTrak an approximate indication of where it is located so it can use its satellite almanac (stored in permanent memory) to estimate what satellites are overhead and which ones it should be looking for.



Follow these instructions to initialize the SporTrak.

## Turning the SporTrak On

Press  [POWER]

The SporTrak turns on and displays the start-up screen and a warning screen.



Press  [ENTER]. (You have 10 seconds to press  [ENTER] or the SporTrak will shut off.)

The SporTrak displays a message box indicating that the receiver needs to be initialized.

Press  [ENTER].



## Enter Your Approximate Position (Initialize)

Use the Up/Down arrows on the keypad to highlight your general region.

Press  [ENTER].



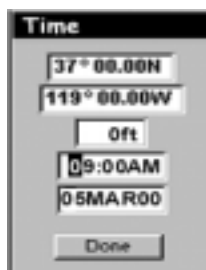
Use the Up/Down arrows on the keypad to highlight your area.

Press  [ENTER].

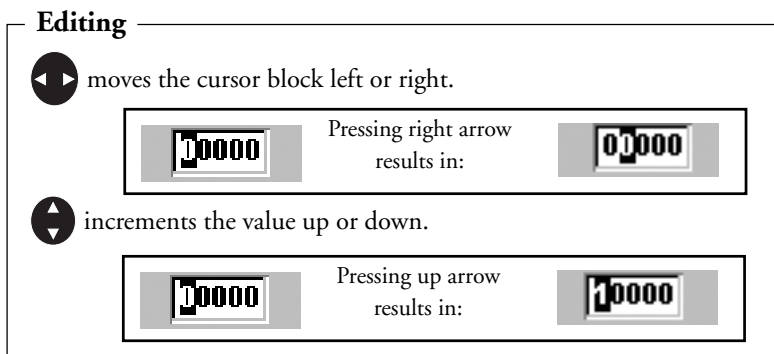



The cursor appears in the time field, waiting for you to input your local time. Set your local time using the arrow keys. Be sure that you set the AM/PM indicator.

Note: After the SporTrak starts to pick up signals from any satellite, it will automatically update the time using the satellite's atomic clock.



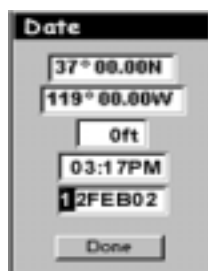
To use the arrow keys to edit a field, follow the simple diagram below.




When the time is correct, press  [ENTER].

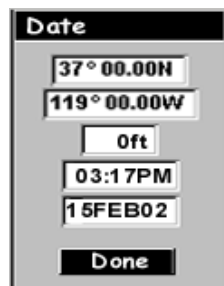
The last piece of information needed is the date.  
Using the arrow keys, enter the present date.

Press  [ENTER].




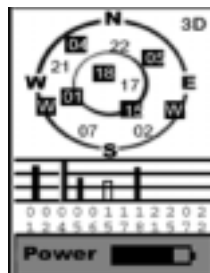
All the information that the SporTrak needs to speed up the process of computing its first fix has been entered and the Done button is highlighted.

To complete the initialization process, press  [ENTER].



The Satellite Status screen is displayed and the SporTrak begins acquiring the data from the satellites. You can begin using the SporTrak beginning with the Basic Operation described in the next chapter or you can turn the SporTrak off. If you turn the SporTrak off, all of the information you just entered will be saved.

To turn the SporTrak off, press  [POWER].

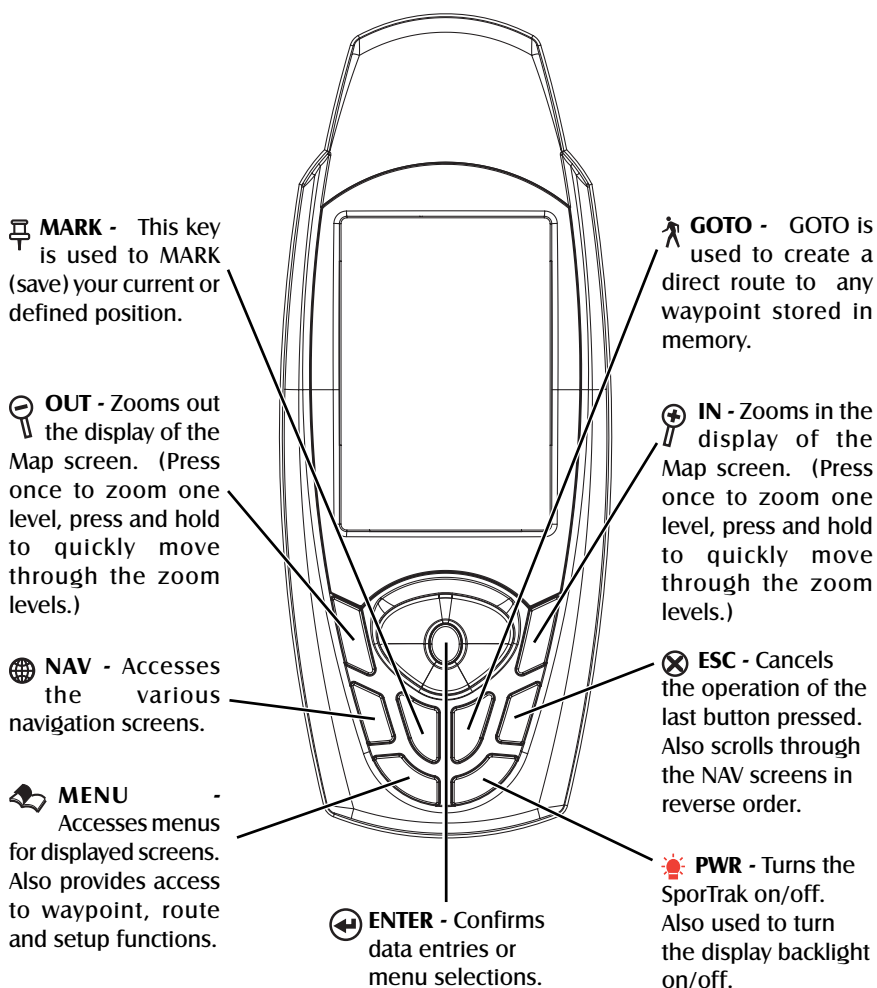




# Basic Operation

For many of you this will be your first introduction into using a GPS receiver as a navigational tool. With all of the features and functions provided with the SporTrak, it may seem a bit intimidating at first. Don't worry. There are only a few things you need to know to use the SporTrak. They will be discussed here in detail. Other features and functions can be found in the Reference Section of the User Manual.

## SporTrak Color GPS Receiver



# Turning Power on/Off

## Turning the SporTrak On



You have 10 seconds to accept the warning by pressing ENTER or the SporTrak will shut off.

The last navigation screen you were viewing will be displayed. If the last navigation screen view was the Map screen, the last zoom scale setting will be used.

## Turning the SporTrak Off



Pressing the POWER button again will turn off the SporTrak immediately.

Pressing ESC will cancel the power down sequence.

# Turning the Backlight On/Off

The display backlight can be set to one of three levels (low, high or off).

Press and hold for 2 seconds



Display backlight illuminates (high)



Press and hold for 2 seconds



Display backlight illuminates (low)



Press and hold for 2 seconds

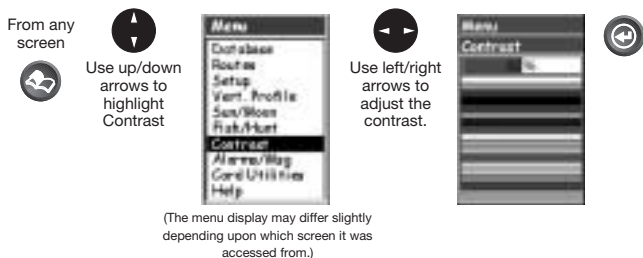


Display backlight turns off



The backlight causes severe drain on the batteries in the SporTrak. To prevent accidentally turning the backlight on and leaving it on, the SporTrak will turn the backlight off when there has been no button presses for 4 minutes. Pressing any button will turn the backlight back on in this instance. You can change the time delay for the backlight in Setup.

## Adjusting the Contrast



## Getting a Position Fix

Because the SporTrak attains information it needs from satellites orbiting the earth, the antenna needs to have a relatively unobstructed view of the sky. This allows the SporTrak to choose from all satellites currently available.



If the view of the sky is poor due to large cliffs or buildings, heavy foliage or other obstructions, the satellite signals can be blocked and the receiver may take longer to compute a position fix.

You can observe the signal strength and the satellites being used on the Satellite Status screen (described in the next section).

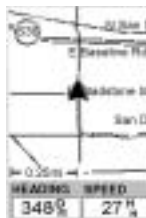


Holding the SporTrak — The receiver is designed to fit comfortably in your hand. Hold the SporTrak in the palm of your hand with the antenna pointing towards the sky.

## Navigational Screens

The SporTrak Color has nine navigation screens: Map screen, Compass screen, Large Data screen, two Position screens, Road screen, Data Screen, Speed Screen and Sat Status screen. They will be described briefly here. More detailed information on the different screens can be found in the Reference chapter of the User Manual.

**Map Screen** — The Map screen has two modes, position or cursor. In the position mode, your present position is indicated by the large arrow icon in the center of the display. If you are moving, the arrow will point in the direction that you are heading. At the bottom of the screen is the scale for the map displayed and two data fields that can be customized, or turned off, depending upon your needs.



In the Cursor Mode, you are provided with a cursor that can be moved on the map. At the bottom of the display is the information for the position of the cursor relative to your present position. Also any points of interest that the cursor is over will be shown.



To access the Cursor Mode, press any arrow on the keypad. A crosshair appears that can be moved with the arrow keys.

To return to the Position Mode, press **⊗** [ESC]. The cursor will disappear and the present position icon will appear centered on the map.



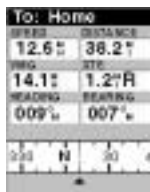
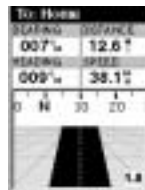
**Compass Screen** — This is a handy screen to have at your fingertips while you are navigating. It is totally customizable to display the information that is useful to you. The lower portion of the Compass screen not only displays your heading in a graphical manner, but also displays the relationship of the sun, moon and your destination (if navigating on a route) to your heading.

**Large Data Screen** — The Large Data screen is similar to the Compass screen but here the compass has been removed to allow for large display of the navigation data. Ideal for when you have your SporTrak mounted on the dashboard of a boat using the optional swivel mounting bracket. Even from a distance the information can be read with ease.



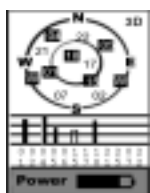
**Position Screens** — The Position screens 1 and 2 display your present position using the coordinate systems that you have selected in Setup. This screen shows all of the basic position, time and satellite information. In addition, current navigation information is shown in the bottom half of the screen.

**Road Screen** — The Road screen presents your route as if you were travelling on a road. When you need to make a turn, the road will graphically display the turn and the direction. Waypoint and destination icons will be displayed relative to your position as they come into view. Above the road is a compass that displays your heading and above that are four customizable data fields.





**Data Screen** — When you need to see a lot of information in one place then you'll appreciate the Data screen. The Data screen provides you with six data fields and an active compass that is the same as the one used on the road screen. You have the option of customizing this screen by selecting what data is displayed in the upper six fields.

**Speedometer Screen** — The Speedometer screen displays your speed in a familiar graphical format. There are four additional data fields at the top of the display that can be customized to display the data that you need. The bottom of the screen contains a trip odometer that will record the distance travelled since the last time the odometer was reset.



**Satellite Status Screen** — The Sat Status screen provides you with a graphical display of the satellites in view and which ones are being used to compute the navigation data. The bar graph shows you the relative signal strength being received for each satellite. At the bottom of the display is an indication of the battery life remaining. When you are using external power, it will be indicated here as well.


## Accessing the NAV Screens


From any screen other than a navigation screen, pressing  [NAV] returns you to the last navigation screen viewed. Note that if you are inputting data, pressing  [NAV] will return you to the last navigation screen but your inputs will not be saved.

# Saving a Waypoint

A waypoint is a point on a map that you can name and save in the SporTrak. They are primarily used for creating routes. Whether the route is a simple GOTO or a more complex multileg route, it needs stored waypoints to use as its starting and destination point.

## Saving a Waypoint with a Receiver-Generated Name


From any screen, press  [MARK].


The “Save” button is highlighted and you can press  [ENTER] to save the waypoint using the default name and icon.

You can later go back and edit any of the waypoint information through the Database Menu or you can change the information now following the guidelines below. (See Waypoints in the Reference chapter of the User Manual.)




## Saving a Waypoint with a User-Input Icon and Name


From any screen, press  [MARK]. Use the UP/DOWN arrows and notice that the highlight moves from field to field and then back to “Save.”

Highlight the Icon field using the UP/DOWN arrows. Press  [ENTER].



The Icon Select window is displayed. Use the arrow keypad to move from one icon to another with the name of the icon displayed at the top. As a reference tool, all of the icons and their names are listed in the Reference Chapter of the User Manual. When you have highlighted the icon you want to use, press  [ENTER].



The cursor is now highlighting the Waypoint Name field. With the Name field highlighted, press  [ENTER]. The input keyboard is displayed. The very top of the keyboard window shows you what field you are changing, in this case the Name field.



You can now use the arrow keypad to select the character you wish to enter. With the character highlighted, press ⤴ [ENTER] and the character is appended to the name you are entering and displayed in the field above the keys. (Note: waypoint names can be up to 8 characters in length.)

Highlighting “Back” and pressing ⤴ [ENTER] erases the last character you entered.

Highlighting “Clear” and pressing ⤴ [ENTER] clears the entire name.

Highlighting the space bar and pressing ⤴ [ENTER] adds a space.

Highlighting “Shift” and pressing ⤴ [ENTER] displays the lower case letters and some additional punctuation marks.

When you have the name the way you want it, highlight “OK” and press ⤴ [ENTER]. You are returned to the Mark screen with the new name displayed.

### Entering a Message

As many as 200 waypoints can have a message assigned to it. This comes in handy in further identifying the waypoint. If this was a waypoint for a friend’s house or business, you could add a phone number or any other information that you find useful.




***Is there a limit to the number of waypoints I can store in the SporTrak?***

Yes, the SporTrak will store up to 500 user waypoints in memory. If you should ever get that many and need to input more, you will have to delete ones that you no longer need to make room.

# Using Goto Routes

A GOTO route is simply a route with a start point and a single destination point: I am here and I want to go to there. All that is required to create a GOTO route is having the destination waypoint saved in memory. This waypoint can be one that you have saved earlier (which is stored in your User Waypoint List) or any of the landmarks that come with the SporTrak in its built-in database.

## Creating a GOTO Route


Press  GOTO. The first thing that has to be done is to select the destination waypoint. This is done by accessing the waypoint database. The first screen is used to select the category of the database that the waypoint is in and how it will be found, alphabetically or nearest to your position, a city or the cursor.

### Selecting a Destination Waypoint from Database using “Near Position”

Use the UP/DOWN arrows to highlight the category that your destination waypoint is in. Use the LEFT/RIGHT arrows to select how the waypoints are displayed, Alphabetical, Near Position, Near City or Near Cursor. In this case, you will be using “Near Position”.


The example shown here is a sample of a City Waypoint List. This is a sample of a Nearest City Waypoint list for Magellan. Your screen will look different.



Use the UP/DOWN arrows to highlight your choice of waypoint to be your destination and press  [ENTER].


The GOTO route is now active and you are returned to the last viewed navigation screen.

### Selecting a Destination Waypoint from the Database using “Alphabetical”

Highlight any category other than User, and press the LEFT/RIGHT arrows to select a Find By of “Alphabetical”. Press  [ENTER]. (In this example, Cities was selected and this is how the screen appears.)



Using the arrow keys to navigate the displayed keyboard, begin typing in the name of the waypoint (destination) you are looking for.

For example, suppose your destination was to be Los Angeles. Use the keypad to highlight the letter “L” and press  [ENTER]. Notice how the name is changed to the first city stored in the SporTrak’s memory that begins with the



letter “L” and that the cursor has moved to the next letter in the city name. (You can move the cursor back if you made a mistake by highlighting the “<-” button on the keyboard and press ⬅ [ENTER].)

Since we are looking for Los Angeles, we need to highlight the “O” next and press ⬅ [ENTER]. Then the “S” and press ⬅ [ENTER].

To add a space, highlight the “space bar” and press ⬅ [ENTER]. (Also, you can use the “->” button to move the cursor to the right if you want to skip the letter the cursor is indicating.)

You don’t need to spell out the entire word. The attempt here is to get close to the name so you won’t need to scroll very far during the next step. As a guide, entering the first five letters should be sufficient. When you are satisfied with what you have entered, highlight “OK” and press ⬅ [ENTER].

The list of all the waypoints for the category you selected, in this case cities, is displayed with the waypoint that was previously selected at the top of the list. Now just use the Up/Down arrows to highlight the waypoint you are looking for and press ⬅ [ENTER].

For this example, you would highlight Los Angeles and press ⬅ [ENTER]. The Map screen is displayed and the SporTrak will begin computing all of the necessary information needed to get you to your destination.

## Navigating on a GOTO Route

The SporTrak has the ability to provide you with the tools you’ll need to navigate to your destination. You have the choice of three customizable screens that display the information that you need in the layout that you desire. Hikers may find the compass screen perfect for them while boaters may prefer the Large Data or Map screen. For you, the Map screen may have all the information you’ll ever require.

Press 🌐 [NAV] until the navigation screen you want is displayed.

If you selected the Map screen, you will see your position icon in the center of the screen with a line drawn for you on the map, graphically displaying the GOTO route.

Note that this route is line of sight (LOS) or “as the crow flies.” The SporTrak does not compute the route using streets and highways providing a turn-by-turn routing. You’ll find very quickly that you can easily use the roads and highways displayed on the Map screen and compare them to the displayed route and get to your destination simply.





GOTO routes are NOT saved in memory when the SporTrak is turned off. If you are navigating on a GOTO route and you need to turn the SporTrak off, you will need to restart the GOTO. Routes, however, are stored in memory. If you need to make a GOTO but expect to turn the SporTrak off before arriving, you might consider making a 1-leg route using the route menu.




## Summary

This concludes the basic operation of the Magellan SporTrak, but there is so much more. More detailed information can be found in the Reference Section of the User Manual.

If this is your first time using a GPS receiver, you should take some time now to get comfortable with the NAV screens and begin saving some waypoints at different locations. An ideal way to get used to using the Magellan SporTrak is to go outside your house and obtain a position fix. (An easy way to see that you are computing a position fix is to view the Sat Status screen. When you see “3D” in the upper right corner, you are computing fixes.) Now view the Map screen. Chances are you will see some familiar streets being displayed.

Now that the SporTrak has told you where you are, save this location into memory by pressing  MARK. Now would be a good time to practice using the keypad to enter a new name for this waypoint. “Home” would be a good choice. When you have finished inputting a name and you’ve highlighted DONE and pressed  ENTER, you will be back at the Map screen. Notice there is now an icon displayed for the waypoint you just created.



Next, go to the store, a friend’s house or any location away from where you are now. Repeat the process of “Marking” this position. (Be sure you are computing fixes before saving the position.) Now you should have two distinct waypoints saved in your SporTrak.

Using the simple instructions provided here, press  GOTO, highlight “User” and press  ENTER. Now use the up/down arrows to highlight the “Home” waypoint (if you called it that) and press  ENTER. The Magellan SporTrak will now begin computing all of the information you need to return to your home. As you are travelling, notice the different NAV screens and witness the data changing as you are moving. (Don’t view the SporTrak screen if you are driving, let the passenger do that.)

Everything else the SporTrak can do for you is based on the simple exercise you just performed and when you are comfortable doing this, everything else will be a simple building block on what you already know.

# Reference

## Power / Backlight / Contrast


**Turn the SporTrak On** — Applies power to the SporTrak and displays last NAV screen viewed. During power-up the first screen shows the software and map database versions currently loaded in the SporTrak. The second screen gives a warning that must be read. After reading the warning press  [ENTER] to proceed. (If you do not press  [ENTER], the SporTrak will shut off after 10 seconds.)




You have 10 seconds to accept the warning by pressing ENTER or the SporTrak will shut off.

**Turn the SporTrak Off** — Shuts down the SporTrak.



Press  [CANCEL] to abort before 5 seconds has elapsed.

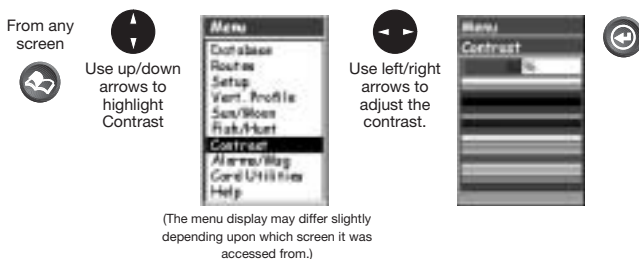
During the 5 second countdown, pressing the  [POWER] key again will shut the SporTrak off immediately.

**Using the Display Backlight** — Illuminates the display for easier viewing in dark surroundings. Use only as needed as the backlight causes a large drain on the batteries. An automatic timer will turn the backlight off when a button has not been pressed for a selected duration. (See “Setup” to change the settings for the automatic timer).




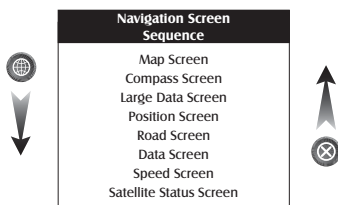
Press and hold for 2 seconds.



**Adjusting the Display Contrast** — Sets the contrast of the display for easy viewing in most lighting conditions.



## Navigation Screens

**Selecting NAV Screens** — The  [NAV] button provides a means of accessing the navigation screens. (Note: the sequence displayed is when all eight (counting both Position Screens as one screen) navigation screens are turned on. Screens turned off in Setup will not be displayed.)

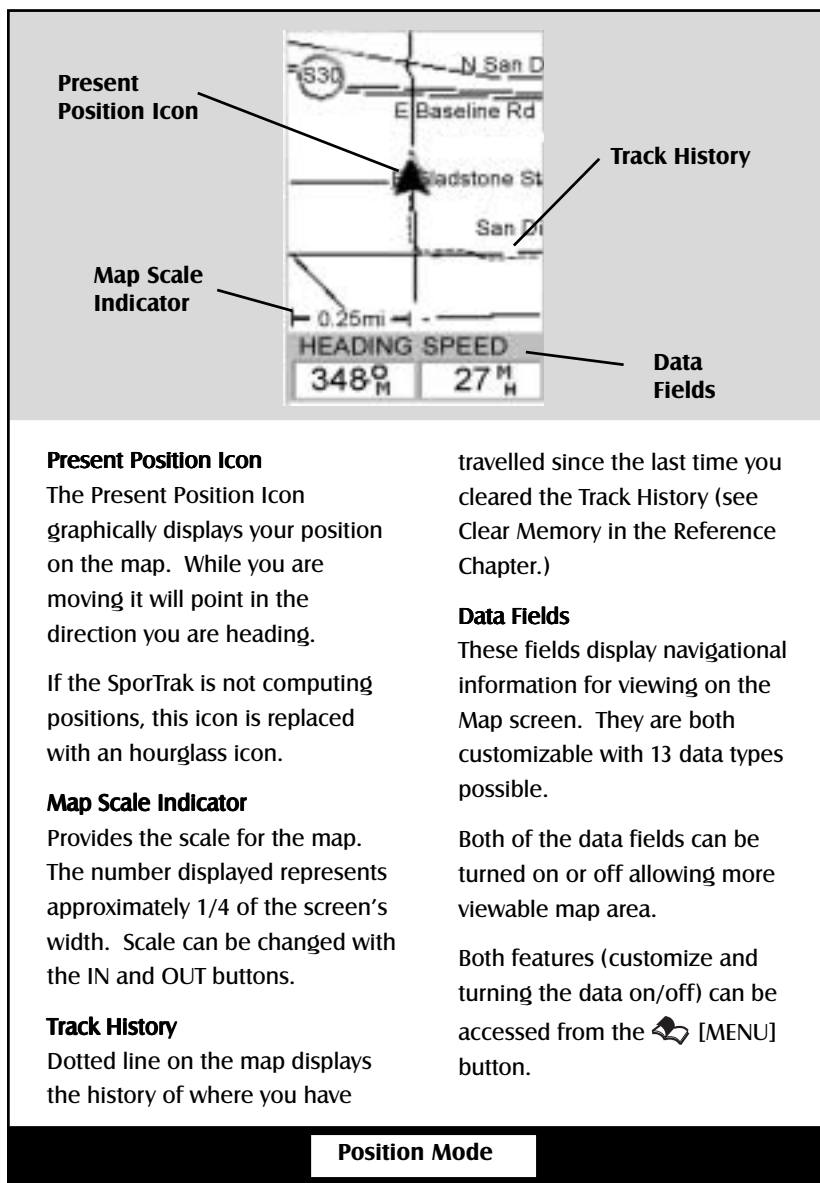


**Returning to Last Viewed NAV Screen** — Pressing the  [NAV] button returns the SporTrak to the last NAV Screen viewed. (Note: if the  [NAV] button is pressed from a screen where data is being input, the data will not be saved.)

## Map Screen

The Map screen is the very heart of the SporTrak. The Map screen has two modes: Position and Cursor.

In the Position Mode, the map is centered around your present position with an arrow cursor indicating your position and points in the direction you are heading. Two customizable data fields are presented at the bottom of the display.



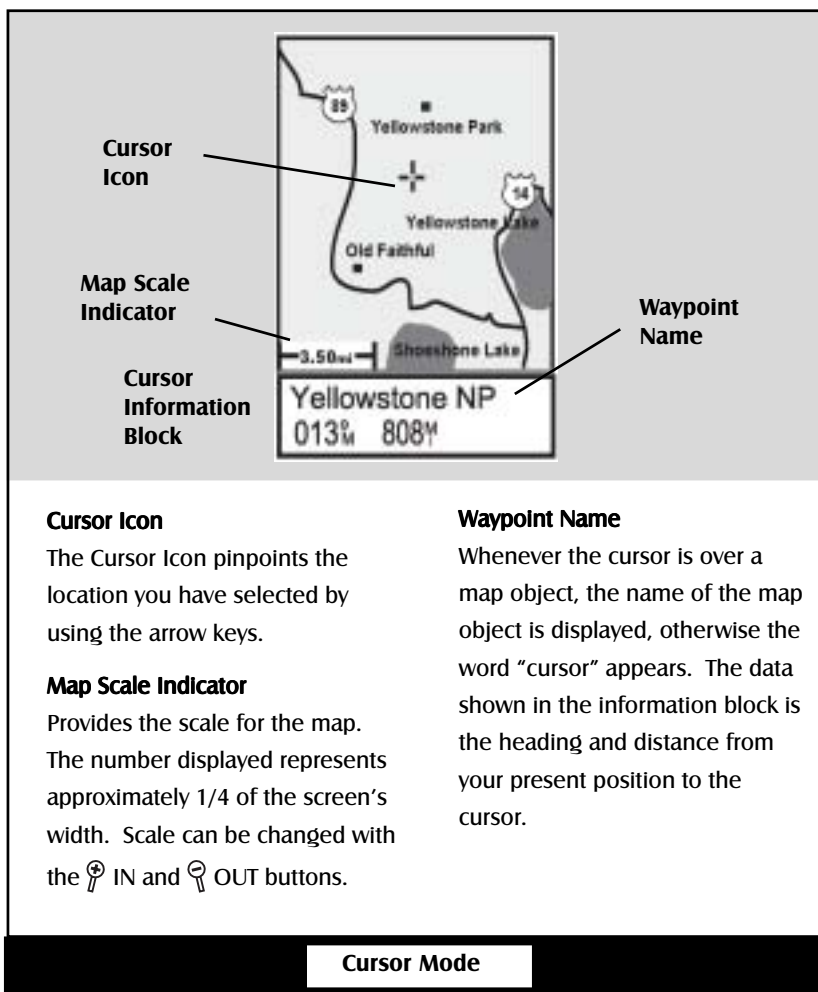
If you require to see more of the map you can also turn off these data fields. Information as to how to customize this screen follows this brief description of the Map screen.

## Reference

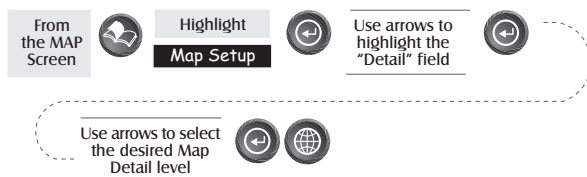
In the Cursor Mode, you are provided with a cursor that can be moved on the map. At the bottom of the display is the information for the position of the cursor relative to your present position. Also any points of interest that the cursor is over will be shown.

To access the Cursor Mode, press any arrow on the keypad. A crosshair appears that can be moved with the arrow keys.

To return to the Position Mode, press ⊗ [ESC]. The cursor will disappear and the present position icon will appear centered on the map.



**Setting the Map Detail** — The detail of the map can be set to highest, high, medium, low or lowest. This changes the zoom level that different map objects (cities, highways, labels, etc.) are displayed. If you have set a zoom level and the display is too cluttered, set the map detail to a lower level; conversely set it to a higher level to view more detail. The default is Medium.



**Customizing the Map Display** — The Map screen can be customized for your individual needs and requirements. You can select what is being displayed on the map as well as what additional data will be presented at the bottom of the screen. Customization is broken into two parts; what items are displayed on the map and what data fields (if any) are displayed at the bottom of the screen.

### Selecting Map Items

**Turning On/Off Display Waypoints** — Turns on or off the waypoints on the Map screen. Default is On.



**Turning On/Off Track Lines** — As you move, your track history is normally displayed on the map screen represented by a dashed line. This function allows you to turn off or on these lines. Default is On.



**Turning On/Off Topographic Lines** — [Available only if a map has been uploaded from a Magellan MapSend Topo for the United States CD-ROM] This function will hide all topo lines and topographic information. Default is On.



**Turning On/Off Displayed POI's** — [Available only if a map has been uploaded from a Magellan MapSend Streets and Destinations or MapSend Topo for the United States CD-ROM] Allows you to select which, if any, POIs that have been uploaded from a MapSend product to be displayed. Default is On.



**Globally Turn Map Items On/Off** — If you have uploaded map data from a MapSend product, you will notice that the list of POIs can be extremely lengthy. To aide you in the customization of the display you can turn everything on or off globally.

To turn off all map items, follow these instructions.



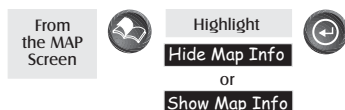
After you have turned off all of the map items, you can go back and just select the POIs that you want to view. Please note that this function will also turn off waypoints, track lines and, if applicable, topo lines. Be sure to turn these back on if you want to see them.

Inversely, to globally turn on all of the map items, follow the above steps but select **"Mark All"** instead of **"Clear All"**.

**Setting Up Map Data Fields** — The following options are available **ONLY** if you are in the Position Mode of the Map screen. If you are in the cursor mode, press the [ESC] key and the display will snap back to the Position Mode with the arrow icon displaying your present position. (If you are not clear on which mode you are in, the simplest way to determine it is to see what cursor is displayed; an arrow indicates Position and a crosshair indicates Cursor. If you press the [ESC] key and the display changes to another Nav Screen you were in the Position Mode and you can press [NAV] to return to the map.



**Turning Data Fields On/Off** — This option allows you to turn on or off the two information fields that are displayed on the Map screen. Turning these off allows for more of the map to be displayed. Default is SHOW.




When Map Info is hidden and the map is in the cursor mode, the bearing (BRG) and distance (DIS) to the cursor is shown in the bottom left corner of the map replacing the scale. (Note: if you have uploaded topographic information from Magellan's MapSend Topo for the United States CD-ROM, the elevation at the cursor's location is displayed, not the bearing and distance.) If the cursor happens to be on a map object, the name of the object is displayed.

**Selecting the Data Fields** — This function allows you to select which data fields are to be displayed. You can choose from Customize Fields, Street Information or, if topographic information is loaded, you can select Horizontal Profile or Terrain Projection. If you select either Horizontal Profile or Terrain Projection and you do not have topographic information loaded a warning screen is displayed.

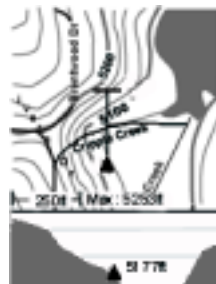


**Two Data Fields Description** — This option displays two boxes at the bottom of the map that can display data that you choose. Displaying these data fields is the default for the SporTrak.

**Changing the Data Fields** — Allows you to change the data that is being displayed to 1 of 13 different data options (bearing, distance, speed, heading, VMG, CTS, ETA, ETE, XTE, turn, elevation, time, or date). Note: If you have selected Hide Map Info, this option will not be available in the menu. Also, you must have the Two Data Fields displayed on the Map screen to be able to customize them. Press  [ESC] when you are done to leave the customize mode.

**Street Information Description** — This mode just displays the name of the street close to your present position.

**Horizontal Profile Description** — This mode displays at the bottom of the Map screen a graphical representation of the horizon at a fixed distance from your present position. This fixed distance is equal to the map scale you have selected for the Map screen, so as you zoom in or out, the horizon displayed will change. In the Horizon Profile mode, you will also notice a line projected out from your present position icon to a shorter perpendicular line. The intersection of the two lines indicates the location on the map where the horizon is being computed. (This function requires that map data has been uploaded from Magellan MapSend Topo for the United States and that your present position as well as the projected horizon falls within the area uploaded.)



You should note that when you select Horizontal Profile, your Map Orientation will change to “Track Up” so you may need to change that when you are done viewing the horizontal profile. If you change Orientation to something other than Track Up while viewing the Horizontal Profile, the default Two Data Fields is displayed. Changing the Orientation back to “Track Up” will revert back to the Horizontal Profile.

Also, you must be zoomed in to a scale of 0.80 miles or closer for the horizontal profile to be displayed. Zoom scales higher than 0.80 miles will cause the data displayed to change to the Two Data Fields and will change back to Horizontal Profile as you zoom in to 0.80 miles and below.

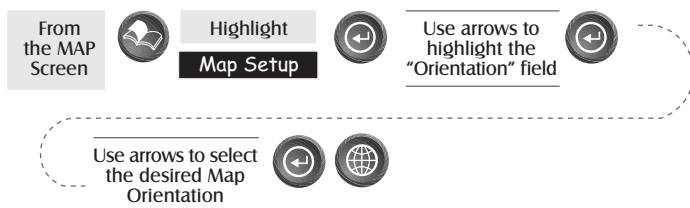
**Terrain Projection Description** — This feature allows you to view the terrain directly ahead of you graphically. It is computed from your present position and extends in a straight line to the top of your display. This provides you with instantaneous information on what terrain elevations are directly in front of you. Your present position and elevation are indicated at the left side of the display. The maximum elevation for the terrain ahead of you is displayed above the graph, next

to the map scale indicator. (This function requires that map data has been uploaded from Magellan MapSend Topo for the United States and that your present position as well as the projected horizon falls within the area uploaded.)

Like Horizontal Profile, you must be zoomed in to a scale of 0.80 miles or closer for the projected terrain to be displayed. Zoom scales higher than 0.80 miles will cause the data displayed to change to the Two Data Fields and will change back to Terrain Projection as you zoom in to 0.80 miles and below.

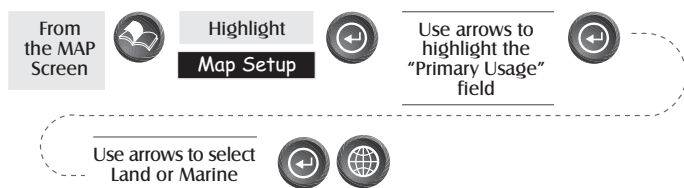
You should note that when you select Terrain Projection your Map Orientation will change to “Track Up” so you may need to change that when you are done viewing the projected terrain. If you change Orientation to something other than Track Up while viewing the Terrain Projection, the default Two Data Fields is displayed. Changing the Orientation back to “Track Up” will revert back to the projected terrain.

**Changing the Map Orientation** — You can change how the map is orientated on the screen to either North Up, Course Up or Track Up. Default is North Up.

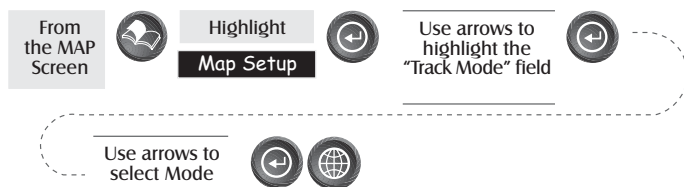


- |           |                                                                                                                                                                |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| North Up  | North is at the top of the screen.                                                                                                                             |
| Course Up | The heading of the active leg of the active route is at the top of the screen. If no route is active, North Up orientation is used until a route is activated. |
| Track Up  | Your heading (i.e., the direction you are travelling) is at the top of the screen.                                                                             |

**Selecting Primary Usage** — The SporTrak can be set to either Land or Marine Usage. When in Land (default), the map displays land areas in white and water areas as dark gray. For marine applications it may be desirable to reverse the display, showing water as white and land as dark gray. This will make reading some of the data information on the water easier.



**Selecting Track Mode** — Allows you to set how often the SporTrak stores track points. Setting the mode to “OFF” stops the SporTrak from saving any new track points. In “Auto” or “Auto Detailed” mode, the SporTrak uses a method for track point storage that maximizes memory. Using Auto, you will see more points on and near turns and less points on straight stretches of the map. You also have the option of selecting fixed intervals for track point storage.terrain.



Setting the Track Mode to “OFF” will cause severe limitations to the ability of your SporTrak to create a backtrack route. The same temporary waypoints used to create the displayed track are used to compute a backtrack route. Therefore, it is highly recommended that you use the “Auto” Track Mode whenever possible.

**Auto vs. Auto Detailed.** You will notice two of the options for the Track Mode are Auto (default) and Auto Detailed. Basically, both options behave the same. While your are travelling in a straight line, only a few track points are taken, but as you turn the SporTrak increases the rate of track points. This allows for a good representation of your track with minimal track points stored. Auto Detailed performs exactly the same as Auto, but has the base rate of track points saved increased. This allows a more detailed track then Auto to be taken, while at the same time saving memory over a fixed rate.

**Using Vertical Profile** — Vertical Profile displays the elevation as a graphical display for the option you select.

Only Track History is available for this function if MapSend Topo for the United States map data is not uploaded. (Path Check is shown as an available function but will not display the vertical profile, however it can be used to graphically create a route. See the information on Path Check for more details.) If a topographic map has been uploaded, you have the additional options of selecting Path Check, Route or Highlighted Road.

While viewing the vertical profile screen, you can use the left and right arrows to move the profile accordingly. The vertical dashed line in the middle of the profile plot provides the elevation for that point on the profile.

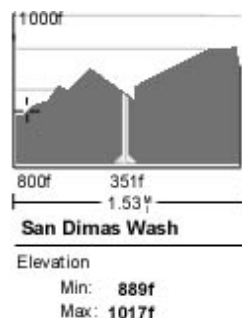
**Selecting Vertical Profile** — Note, not all options for Vertical Profile are available at all times. For example, if you have a topographical map loaded but the cursor or present position is not on a road, the option “Highlighted road” will not be displayed.



**Track History Description** — This option displays the vertical profile of the track that is stored in the SporTrak. If you have cleared your track, either with the Clear Track option or clearing memory, Track History cannot be accessed.





### Highlighted Road Vertical Profile

**Description** — (Available only with map data uploaded from Magellan MapSend Topo for the United States.) If the cursor or your present position is on a road and you have topographic maps loaded, you can view the vertical profile for the road you have selected.




**Route Vertical Profile Description** — (Available only with map data uploaded from Magellan MapSend Topo for the United States.) If you have at least one route stored in memory, you can view the vertical profile for the route. After selecting Vertical Profile, you will be asked to select the route you want to plot.

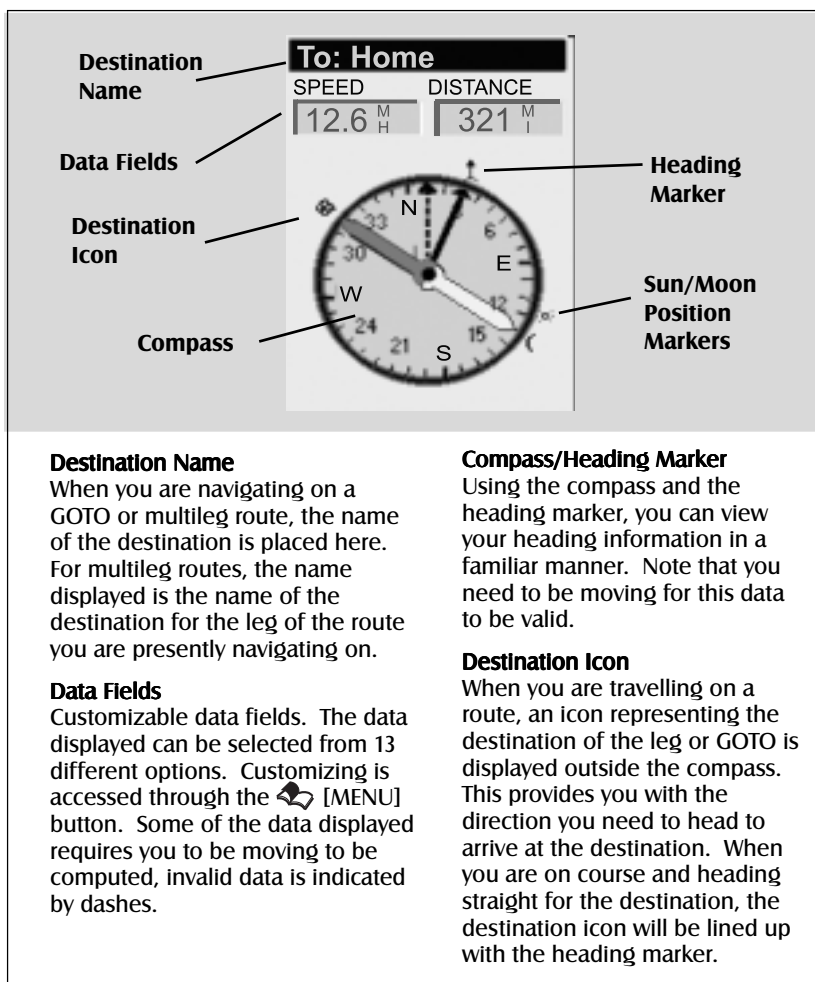
**Path Check Description** — Path check performs two functions. First, it allows you to create a path on the Map screen graphically and then view this path's vertical profile (assuming that you have uploaded a topo map). You can also save this path as a route, allowing an additional method of creating a route.

After selecting Path Check from the Vert. Profile menu, you will be returned to the Map screen where you can begin to lay out your path. Using the arrow keypad, move the cursor to the desired location of the path's beginning and press  [GOTO]. Now use the arrow keypad to move to a new location and press  [GOTO]. Notice a thick line has been drawn between the two points. Continue moving the cursor and pressing  [GOTO] until your path is complete. When it is done, press  [ENTER] and the vertical profile for the path is displayed.

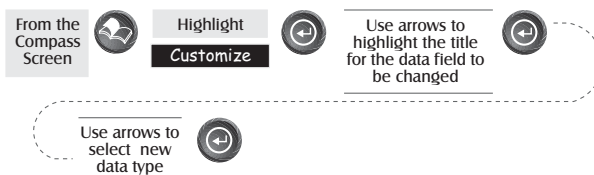
When you are done viewing the Vertical Profile of the path you created, press ESC to return to the map screen. Now you can continue adding legs to the path.

**Tip:** You can convert this path into a stored route by simply pressing the  [MENU] key and selecting the Save To Route option.

## Compass Screen



**Customizing the Data Fields** — Allows you to change the data that is being displayed to 1 of 17 data options (bearing, distance, speed, heading, VMG, CTS, ETA, ETE, XTE, turn, elevation, time, date, COG, EPE, Avg. Speed, or Max Speed) for any of the two fields.



## Large Data Screen

**Destination Name**

**To: Home**

**Data Fields**

BEARING
247° M
HEADING
321° M
SPEED
36.1 M H
DISTANCE
12.6 M I

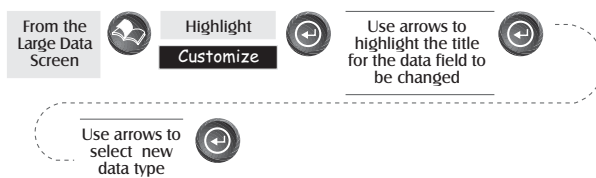
**Destination Name**

When you are navigating on a GOTO or multileg route, the name of the destination is placed here. For multileg routes, the name displayed is the name of the destination for the leg of the route you are presently navigating on.

**Data Fields**

Customizable data fields. The data displayed can be selected from 17 different options. Customizing is accessed through the [MENU] button. Some of the data displayed requires you to be moving to be computed, invalid data is indicated by dashes.

**Customizing the Data Fields** — Allows you to change the data that is being displayed to 1 of 17 data options (bearing, distance, speed, heading, VMG, CTS, ETA, ETE, XTE, turn, elevation, time, date, COG, EPE, Avg. Speed, or Max Speed) for any of the four fields.





## Position Screen

The Position screens 1 and 2 simply display your present position using the coordinate systems that you have selected in Setup. The Position 1 screen shows all of the basic position, time and satellite information, all on one screen. In addition, current navigation information is shown on the bottom half of the screen.

**Selecting the Position Screen** — Allows you to toggle between the two Position screens. This allows the same position to be displayed in different coordinate systems. This is useful when comparing navigation data between devices and charts that use different coordinate systems.

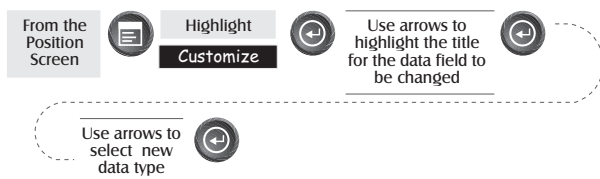
The screen viewed can be changed by pressing the Left or Right arrows while viewing the Position screen.

You can change the coordinate system displayed by following the instructions in *Setup - Selecting the Coordinate System*.

**Resetting the Trip Odometer** — Resets the trip odometer to 0000.00.



**Customizing the Data Fields** — Allows you to change the data that is being displayed to 1 of 17 data options (bearing, distance, speed, heading, VMG, CTS, ETA, ETE, XTE, turn, elevation, time, date, COG, EPE, Avg. Speed, or Max Speed) for any of the two fields.



The image shows a monochrome LCD screen of a GPS receiver. The screen is divided into several sections. The top section displays coordinates '34 06.56N' and '117 49.59W' with an elevation of '1192ft'. The second section shows the time '01:38:31 PM' and date '06 APR 01' with 'WAAS' below it. The third section has two columns: 'HEADING' with '321°M' and 'SPEED' with '12.6°H'. The bottom section is labeled 'Trip Odometer' and shows '17.36 M'. Labels with leader lines point to these sections: 'Present Position Coordinates and Elevation' points to the top section; 'Current Time and Date' points to the second section; 'GPS Status' points to the 'WAAS' text; 'Data Fields' points to the 'HEADING' and 'SPEED' section; and 'Trip Odometer' points to the bottom section.

Use the Left/Right Arrows to toggle between Position 1 and Position 2

**Present Position Coordinates and Elevation**

Displays your present position in the coordinate system chosen in Setup. Also displays the elevation of the present position. If the SporTrak is not computing position fixes, the last computed position is displayed.

**GPS Status**

Provides information on the current status of the GPS receiver portion of the SporTrak.

**Data Fields**

Customizable data fields. The data displayed can be selected from 17 different options. Customizing is accessed through the [MENU] button. Some of the data displayed requires you to be moving to be computed, invalid data is indicated by dashes.

**Trip Odometer**



The odometer performs like the odometer in your car. It can be reset through the [MENU] button.

**GPS Status Messages** — Messages indicating the status of the GPS receiver section of the SporTrak are displayed on the Position screen.

Message	Description
Searching - 1st sat	Searching for 1st satellite.
Searching - 2nd sat	1st satellite found; searching for 2nd satellite
Searching - 3rd sat	Two satellites are being tracked and searching for a third.
Searching - 4th sat	Three satellites are being tracked and searching for the fourth.
Collecting Data	All satellites needed for position fix are being tracked and position is being computed.
Averaging	SporTrak is computing fixes; speed is near 0.0 so position is being averaged.
EPE xxft	Estimated Position Error in feet. SporTrak is computing fixes while moving.
DGPS	Computed fixes are being differentially corrected.


Since the SporTrak is a 12-channel receiver, once the first satellite is found, finding the remaining satellites and computing a fix may take only a few seconds.

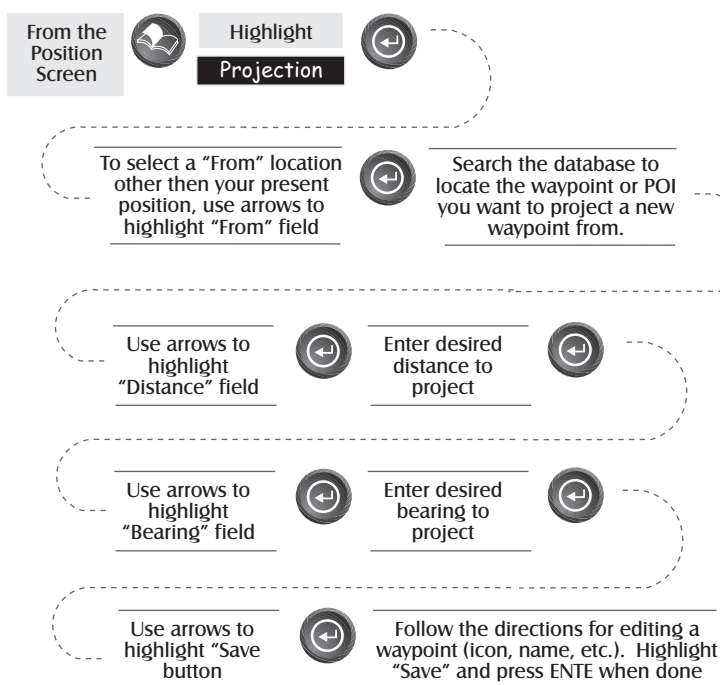
### Selecting Coordinate System, Map Datum and Elevation Mode —

Allows you to change the coordinate system, map datum and elevation mode for the primary and secondary Position Screens. These functions perform identically to the same functions described in the *Setup* section of this manual. Simply described, you press  [MENU] from either Position screen, select the option, press  [ENTER] and follow the prompts.

**Projecting a Waypoint** — This function, found on the menu associated with the Position Screen, allows you to create a new waypoint that is a fixed distance and bearing from your present position or from any waypoint/POI stored in the SporTrak.

An example of waypoint projection would be if you wanted to go to a location that is 2.0 miles and due north of your current position. You would access the waypoint projection function and enter 2.0 as the distance and a bearing of 0°. The Waypoint Projection Screen would compute the coordinates of the “projected” location and then allows you to save this waypoint into the SporTrak’s memory. From there you could simply do a GOTO to the waypoint you just created.

You can also project waypoints from any stored waypoint or POI by highlighting the “From” field and pressing  [ENTER]. This will take you to the SporTrak’s database, giving you complete access to choose from any of the waypoints/POIs that you have stored.



## Road Screen

The Road Screen provides you with navigation information in a graphical format. At the top of the display are four customizable data fields. Immediately below them is a compass that will provide you with your heading. Following the compass is a graphical representation of your route as if it was a road. This familiar indication of where you are in regards to your planned route will provide you with the knowledge required for you to keep on track.

The diagram shows the Road Screen interface with the following components and descriptions:

- Destination Name:** Points to the 'To: Home' text at the top of the screen.
- Compass:** Points to the heading display showing '007°M' and '009°M'.
- Road:** Points to the graphical representation of the route, showing a black road on a grey background.
- Customizable Data Fields:** Points to the four data fields: BEARING (007°M), DISTANCE (12.6 M), HEADING (009°M), and SPEED (38.1 M/H).
- Scale Indicator:** Points to the '1.0' value at the bottom right of the road display.

**Destination Name**  
When you are navigating on a GOTO or multileg route, the name of the destination is placed here. For multileg routes, the name displayed is the name of the destination for the leg of the route you are presently navigating on.

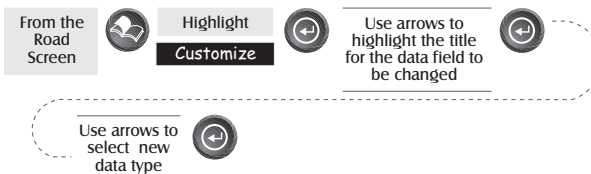
**Data Fields**  
Customizable data fields. The data displayed can be selected from 13 different options. Customizing is accessed through the MENU button. Some of the data displayed requires you to be moving to be computed, invalid data is indicated by dashes.

**Compass**  
Displays your heading in a familiar compass format.

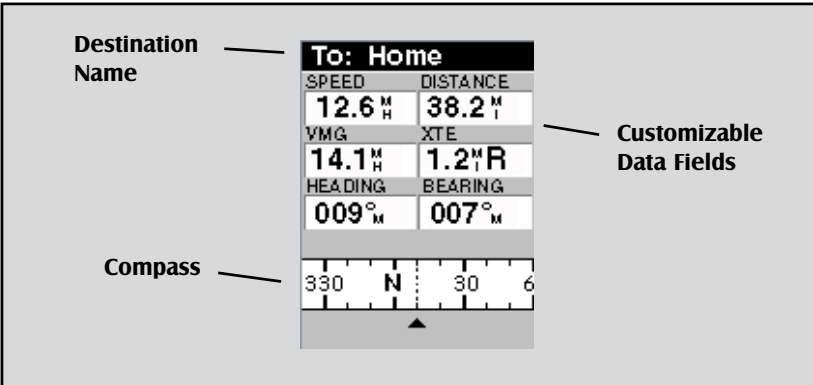
**Road**  
This graphically displays the route (GOTO or other routes) that is active. As you move left or right of your intended track, the road will move on the display indicating which way you need to steer to get back on track. Ideally, the road would be centered on the display. Also, you will see upcoming turns in advance allowing you to make necessary preparations.

**Scale Indicator**  
Use Zoom In/Out to change the scale.

**Customizing the Data Fields** — Allows you to change the data that is being displayed to 1 of 17 data options (bearing, distance, speed, heading, VMG, CTS, ETA, ETE, XTE, turn, elevation, time, date, COG, EPE, Avg. Speed, or Max Speed) for any of the four fields.



## Data Screen



The screenshot shows a navigation screen with the following data fields:

To: Home	
SPEED	DISTANCE
12.6 <sup>M</sup> <sub>H</sub>	38.2 <sup>M</sup> <sub>T</sub>
VMG	XTE
14.1 <sup>M</sup> <sub>H</sub>	1.2 <sup>M</sup> <sub>R</sub>
HEADING	BEARING
009 <sup>°</sup> <sub>M</sub>	007 <sup>°</sup> <sub>M</sub>

Below the data fields is a compass display showing a heading of 330 degrees, with 'N' for North and a scale from 30 to 60 degrees.

**Destination Name** — Points to the 'To: Home' title.

**Compass** — Points to the heading display.

**Customizable Data Fields** — Points to the data fields table.

**Destination Name**

When you are navigating on a GOTO or multileg route, the name of the destination is placed here. For multileg routes, the name displayed is the name of the destination for the leg of the route you are presently navigating on.

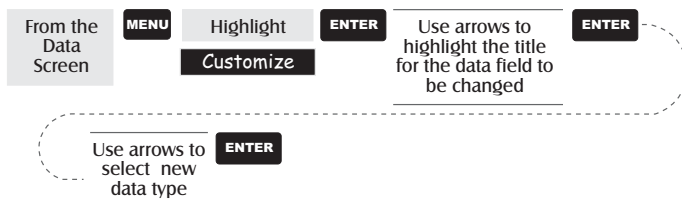
**Data Fields**

Customizable data fields. The data displayed can be selected from 17 different options. Customizing is accessed through the MENU button. Some of the data displayed requires you to be moving to be computed, invalid data is indicated by dashes.


**Compass**

Displays your heading in a familiar compass format.

**Customizing the Data Fields** — Allows you to change the data that is being displayed to 1 of 17 data options (bearing, distance, speed, heading, VMG, CTS, ETA, ETE, XTE, turn, elevation, time, date, COG, EPE, Avg. Speed, or Max Speed) for any of the six fields.



## Speed Screen



The screenshot shows the Speed Screen interface. At the top, the 'Destination Name' is 'To: Home'. Below this is a table of 'Customizable Data Fields':

HEADING	DISTANCE
221° <sub>M</sub>	1.06 <sub>M</sub>
ETE	ETA
021 <sub>m</sub>	11:14 <sub>A</sub> <sub>M</sub>

Below the table is a 'Speedometer' display showing a needle on a scale from 0 to 8 MPH. At the bottom is the 'Trip Odometer' showing 0023.10<sub>M</sub>.

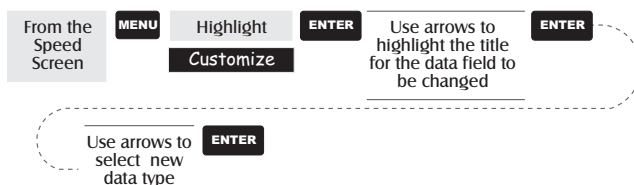
**Destination Name**  
When you are navigating on a GOTO or multileg route, the name of the destination is placed here. For multileg routes, the name displayed is the name of the destination for the leg of the route you are presently navigating on.

**Data Fields**  
The data displayed can be selected from 17 different options. Customizing is accessed through the MENU button. Some of the data displayed requires you to be moving to be computed, invalid data is indicated by dashes.

**Speedometer**  
Displays your speed using a familiar speedometer display. The scale of the speedometer is not adjustable but will change dynamically to best display your speed.

**Trip Odometer**  
It can be reset using the MENU button.

**Customizing the Data Fields** — Allows you to change the data that is being displayed to 1 of 17 data options (bearing, distance, speed, heading, VMG, CTS, ETA, ETE, XTE, turn, elevation, time, date, COG, EPE, Avg. Speed, or Max Speed) for any of the four fields. (See explanation of Data Types in the Map Screen section.)



### Satellite Status Screen

The Satellite Status screen visually displays the satellites being used and the strength of the received signal. Additionally, this screen displays the power source you are connected to and, if internal batteries, how much battery life is remaining. This is a very handy screen when you wish to view how well your SporTrak is tracking satellites.

